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ABSTRACT

Objectives of a study of the impact of participatory-democratic work experience on adolescent development are (1) to explore the possibilities for facilitating adolescent development by promoting participatory-democratic work structure in Youth Conservation Corps (YCC) programs and to augment past research on YCC by monitoring the structure of work organization within standard YCC groups and evaluating the effects of participation in them using depth interviews and projective measures as well as an attitude measure. Applicants to the YCC program were assigned to treatment and control groups randomly and an intervention by investigators increased participants' opportunities to participate in decision making in one of the four crews, as confirmed by regular observations. Pre- and post-program administration of the Ego Development Scale, and the Psychosocial Maturity Inventory, and of an interview designed to assess the structure of thinking about work-related issues will allow assessment of whether adolescents in the YCC developed more than those not selected for the program and whether participants in the participatory-democratic work crew developed more than those in the other crews. If the evidence is suggestive investigators hope to conduct a study to confirm or disprove the hypotheses. (Focus in the paper is on use of an experimental design, development as an outcome, use of "structural interviews," and participatory democracy as a key program feature.) (JT)

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The Impact of Participatory-Democratic Work Experience on Adolescent Development: A Methodological Report

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Presented at the annual meeting of the American Educational Research Association, Boston, April, 1980.

The authors are listed alphabetically; they contributed equally to this paper. They would like to thank the Youth Conservation Corps staff and participants who made possible the study reported here and the students who assisted with it.

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Objectives

The primary objective of the research described in this paper is to explore the possibilities for facilitating adolescent development by promoting participatory-democratic work structure in Youth Conservation Corps (YCC) programs. Our secondary objective is to augment past research on the effects of YCC programs in general by (a) monitoring the structure of work organization within standard YCC groups, and (b) evaluating the effects of participation in them using depth interviews and projective measures as well as an attitude measure.

We attempted to promote participatory-democratic work organization within demonstration groups in a YCC summer program. We are now comparing the learnings and possible developmental changes occurring among participants in the demonstration groups with those of participants in standard YCC work groups and with those of applicants who were not selected for any YCC program. We hope that this research will provide an initial empirical justification for a larger scale study to verify the claim that participatory-democratic work experience can promote adolescent development, as well as generate more refined hypotheses that could be tested in such a study.

Our interst in conducting this sort of intervention research project represents the intersection of three related concerns. One concern is with facilitating the realization of the broad developmental potentials of adolescence as a stage of the life-cycle. The second concern is with adolescents as present and future participants in the world of work. The third concern is with addressing the puzzling results and questions generated by past research on the developmental effects of YCC projects on participants.

Theorists of adolescent development note that adolescence is a stage with special developmental potential. Erikson (1968) stresses the importance of adolescents forming a "psychosocial identity," by reflecting on past growth and experiences and by planning for the future, incorporating the messages given to them by others about who they are. According to Erikson, a key activity by which adolescents form strong and functional

identity is commitment-testing. Most adolescents are mature enough to make commitments to endeavors of social significance, but sufficiently free of adult responsibilities to be able to withdraw easily from those commitments and make new commitments in the light of new knowledge or changes in interests. The process of commitment-testing helps the adolescent to find those commitments that provide the most adequate basis for personal identity and eventually to take on long-term occupational and family responsibilities.

According to Kohlberg and Gilligan (1971), the development of the capacity for abstract thinking (Piaget's formal operations) in adolescence makes it possible for adolescents to develop a more systematic understanding of the legal and moral order of society. This understanding in turn makes it possible for the adolescent to question that order, viewing it as only one of a variety of hypothetical alternatives. This structural-developmental analysis of the potentials of adolescence may be extended beyond the sphere of moral development to social development more generally or to ego development (Loevinger, 1976). The most important factor in determining whether new cognitive abilities bring moral and social development along with them is the availability of "role-taking opportunities" (Kohlberg, 1969). An individual must have exposure to other people's differing points of view on moral and social decisions, and the opportunity to engage in a give-and-take process aimed at reconciling those differing points of view if the development of moral and social reasoning is to occur.

These theoretical orientations led us to believe that a participatory-democratic Youth Conservation Corps project could be a potent influence on adolescent development. We expected that work with a small group of peers and an adult on socially useful tasks that are jointly planned, along with extended discussion about how and why the work should be done, would provide excellent opportunities for commitment-testing and role-taking.

The second dimension of our rationale deals with adolescents as present and future partici- pants in the world of work. Work experience is important for adolescent development, but we believe that the quality of the work experience is crucial to what adolescents

learn. If all that young workers take away is their first taste of the blue collar blues or white collar woes that have been documented in the past decade's studies of the quality of working life (Work in America, 1973; Terkel, 1972; Sheppard and Herrick, 1972), we have every reason to believe that the work attitudes developed will be those that currently plague American industry: the set toward trying to minimize one's work output while maximizing the monetary rewards one receives. If, on the other hand, adolescent work experiences can be designed to foster development, they can be important arenas for growth in themselves and they can prepare a new generation of workers to function effectively within healthier, more democratic work organizations than currently exist.

Workplace democratization experiments are consistently successful in increasing job satisfaction and productivity in the short-run (Blumberg, 1973), but many are short-lived, in part at least because participants lack appropriate skills, attitudes and interpersonal and cognitive competencies (Zwerdling, 1978; Bernstein, 1976). Adult workers and managers who have spent the greater part of their lives functioning within traditional hierarchical organizations apparently have difficulty adapting to the new demands of cooperative work and decision making. Job programs for youth, particularly the YCC, provide an opportunity to overcome this barrier because the participants have not yet been socialized into hierarchical work organizations and because part of the program's mandate is education, not just production.

We have spelled out a set of cognitive and interpersonal competencies that would facilitate working effectively within participatory-democratic work organizations and have presented them as a set of stages. These "levels of social reasoning about work related conflicts" (Appendix) provide a framework for analyzing the influence of work experience on adolescents' thinking about work and for helping leaders in work programs make the most of the developmental potential of work experience.

The educational purpose of YCC, including the assignment of 25% of work time to learning, makes it an ideal program in which to promote participatory-democratic work organization. There is sufficient flexibility that leaders can function as resources

rather than supervisors to the workers, helping them to make most of the important decisions as a group.

The research that has been done on the developmental impact of YCC on participants suggests that the program can have positive effects, but the findings are mixed. Frankel (1979) found that participants in one YCC program showed statistically significant gains on two subscales of the Psychosocial Maturity Inventory (Greenberger, et al., 1975) and that those gains were not matched by a control group or by workers in another youth job program. The Psychosocial Maturity (PSM) Inventory was administered at the beginning and end of 14 YCC programs the following year with inconsistent results (Hamilton & Stewart, 1978). In nine federally sponsored programs where no other data were collected, participants showed statistically significant gains on five of nine subscales. But in five state sponsored programs for which considerably more information was available, participants gained on one subscale and lost on another. Most surprisingly, observed differences in program quality were not reflected in the measures.

Among the possible explanations for these confusing findings are two that this study examines. One is that the PSM Inventory is less appropriate to assessing the impact of YCC than measures that reflect changes in the underlying structure of individuals' social reasoning and self-concepts. The second is that variations in one characteristic of YCC programs--participatory-democratic work organization--may be particularly potent in producing maturational effects.

One of the unique features of our study was its use of an experimental design. The appropriateness of experimental designs to studies of educational and social action programs has been one of the most hotly debated topics in the emerging field of evaluation research. At one extreme of the debate are those who view anything less than a rigourous experiment as soft, unreliable, and probably trivial. At the other are those who claim that the complexities of real life are hopelessly distorted by any effort to impose the controls required by experiments. Of course, most debaters are careful to stake out a position between these extremes, agreeing that there are some conditions that are

more congenial to experiment than others, but disagreeing about what those conditions are and how widespread they might be. (See, for example, Riecken and Boruch, 1974; Bennett and Lumsdaine, 1975; Patton, 1978.)

What is not usually debated in this context is the assumption that experiments are appropriate when the purposes of programs are fairly precisely stated and narrow and when enough is known from nonexperimental research to fashion an experimental design that fits the program and is likely to provide clear-cut answers to the questions that have been posed, almost always questions about program effects. Bronfenbrenner, advocating "ecological experiments" for the purpose of learning about human development in natural contexts, challenges the conventional wisdom on the timing and purposes of experimental research:

> ...the primary purpose of the ecological experiment becomes not hypothesis testing but discovery--the identification of those systems properties and processes that affect and are affected by the behavior and development of the human being (1979, pp. 37-38).

Our hypotheses were that the treatment group would be superior to the nontreatment group and that the participatory-democratic work crew participants would be superior to conventionally supervised work crew participants in developmental gains. But these hypotheses were, as Bronfenbrenner suggests, not for testing but for discovery. We recognized that the hypotheses stated our hopes rather than the final stage of a theoretical chain of reasoning and that the small size of our sample combined with the stability of scores on developmental measures made statistically significant differences of the kind we hypothesized unlikely. Nevertheless, stating the hypotheses proved helpful in keeping us focussed on the central issues under investigation when the process of putting a research proposal into action presented us with difficult choices regarding the allocation of limited resources.

Each of these hypotheses was explored by a different aspect of the design. The comparison between treatment and nontreatment groups was facilitated by the random

selection of applicants to YCC. This procedure, which is part of the program nationwide, allowed us to constitute a true control group of applicants who were not selected to participate in the program.

The comparison entailed by the second hypothesis, between YCC participants in participatory-democratic work crews and those in "standard" crews, required an intervention on our part to increase the likelihood that participants would experience participatory democracy in their work and an effort to monitor the effects of our intervention. The approach we chose for this purpose was to establish a consulting relationship with two of the four crew leaders with the intention of heightening the participatory democratic nature of the work. This aspect of the design was not randomized. We met with all four crew leaders during their orientation week to explain our study and especially the consultation part. All four agreed to take part in the consultation, but we judged two to be more enthusiastic about the prospect and selected them. We then spent about four hours on another day talking with them about democratic leadership, and making some concrete plans about ways to orient their work crews to participating in decision making.

We suggested that the two leaders try to make very explicit what the "givens" of the program were-regulations, minimum expectations from program administrators, and the leaders' expectations regarding such matters as work output and behavior. Then, we proposed, they might set out the kinds of things about which the young people would be able to make decisions. We discussed what those might include and came up with decisions such as whether to seek administrative approval for changes in the list of prescribed tasks, what order to follow in completing prescribed tasks, how jobs would be done, when rest periods would be scheduled, what tasks might be done in addition to or instead of prescribed tasks, and how to organize the crews. We also suggested that as questions or problems arose they might be dealt with through group discussion rather than by the exertion of unilateral authority on the part of leaders. Both of the crew leaders expressed agreement with this approach and enthusiasm for trying it. In fact, they declared it to be their natural style.

As others interested in democratic leadership have found, however, there is considerable distance between affirming the democratic ideal and practicing it (Argyris, 1970). In fact, it proved quite difficult for both of the leaders who wished to be democratic to evolve behavior styles and group procedures that facilitated youth participation in decision making.

In order to assess the extent of participatory democracy in all four of the crews, we visited each one during all eight weeks of the program. Two observers simultaneously spent from two to four hours at each site during every visit. They spent some time during each visit writing "running records" of activites and verbal interactions, some time writing notes on episodes they had observed just previously, and some time talking informally and working alongside the participants. These observations were not designed to provide quantitative data; instances of participatory decision making were not counted, for example. Rather they gave the researchers a basis for judging the extent to which each crew operated in a participatory democratic manner, whether there was a consulting relationship with the leader or not.

The two principal investigators were responsible for consulting with the democratic crew leaders, and they observed regularly in those two sites. However, all observers spent time at all sites over the summer. Before the summer was over, the five observers were able to agree easily that one of the crew leaders who was trying to be democratic had made considerable progress toward this goal while the other had given up the effort. We could also agree that in terms of morale and accomplishment one of the other two sites was a disaster and the remaining one was excellent, though clearly not democratic.

Four levels of evidence may be sought regarding the effects of experiential education programs: (1) participant perceptions; (2) other evidence of effects, ranging from testimonials to scores on standardized tests administered before and after; (3) evidence not only that participants were affected but that the effects were associated with the program; and (4) evidence regarding what aspects of a program were responsible for what effects (Hamilton, 1980). Most program evaluations never get beyond the second level because

of the difficulty of securing control groups, which are almost essential to achieving the third level. By employing a randomly selected control group, we have achieved the third level. If changes in development are found in YCC participants and not in rejected applicants, we will have a strong basis for claiming that the program was responsible for those changes. Moreover, by varying the nature of the program and observing to verify that the crews did in fact function differently, we have reached the fourth level. If young people in the participatory democratic crew gained more than those in the leader-directed crews, or are different in any way that did not appear before the program, we will have strong evidence for the positive effects of participatory- democratic work experience in comparison to work experience under the control of an adult leader.

Measures

Development as an Outcome

Programs like YCC have been widely recommended by individuals and by groups concerned with secondary education and the transition of adolescents to adulthood. Coleman, chairing the Panel on Youth of the President's Science Advisory Committee, has been among the clearest about the goals of such programs, which he distinguished as "self-centered...skills that expand the personal resources, and thus the opportunities of a young person," and "centered on others...the opportunity for responsibilities affecting other persons" (1974, p. 3). It is among the second class of goals that Coleman saw the greatest need, because schools have traditionally emphasized the first.

Although the goals stated by Coleman are attractive ones, they can be characterized in Kohlberg and Mayer's terms (1972) as examples of the "bag of virtues" approach to stating educational aims. That is, they describe a set of widely desired characteristics without either a philosophical or an empirical justification for singling out those particular virtures. Kohlberg and Mayer proposed, and we accept, the notion of development as the proper aim of education.

Therefore, we selected as outcome measures, two standardized measures that purport to be measures of development, plus an interview measure of cognitive-structural development which we designed for this study.

Standardized Measures

The two standardized measures of development are Loevinger's Ego Development scale (Loevinger, Wessler, and Redmore, 1970) and the Psychosocial Maturity Inventory by Greenberger, et al. (1975). Both of these measures were administered to YCC participants and those rejected applicants in our control group at the end of June (before the program began), and again in January, 1980, four months after the end of the program. The delay in administering the posttest was to eliminate short-term effects.

Loevinger's conception of ego development (1976) integrates the neo-psychoanalytic (Erikson, 1968) and the structural-developmental (Kohlberg and Gilligan, 1971) approaches to developmental theory. Her measure is based on written responses to a set of 36 sentence stems. Coding is quite complex, but the measure is widely used and its reliability has been firmly established

The Psychosocial Maturity Inventory also integrates a wide range of theories of development (Greenberger and Sorenson, 1974). Its format is a series of statements with which respondents are asked to agree, agree strongly, disagree, or disagree strongly. The statements are aggregated in nine subscales and three summary scales, each of the summary scales being related to

> ...three general capacities, which correspond to three general demands made by all societies on individuals. They are (1) the capacity to function effectively on one's own, or individual adequacy; (2) the capacity to interact adequately with others, or interpersonal adequacy; and (3) the capacity to contribute to social cohesion, or social adequacy (Greenberger, et al., 1975, p. 128).

Previous use of this measure with YCC participants demonstrated no advantage to using the summary scores and a far greater likelihood of change on five of the subscales than on the other four. Therefore, we administered only those five subscales: work orientation, trust, communication, tolerance, and social commitment.

Interviewing for Cognitive Structure

Structural interviews are designed to reveal patterns of organization in individuals' thinking. In such interviews, the subject's statement of an opinion is only the first step in a sequence. The subject is asked to reflect self-consciously on the opinions which he offered, and to explain his reasons for holding those particular opinions, as well as ways in which he thinks his views could be justified. The purpose of such questioning is to get the subject to reveal the underlying structures or modes of making connections among thoughts that tie his substantive ideas together. If such questioning is pursued to the point where the subject has nothing new to say about the matter, the structural interviewer assumes that the subject has revealed the deepest levels of his cognitive organization that are accessible to consciousness and verbal description.

The following excerpt illustrates the process of probing for structure employed in the interviews. The interviewer's words are in all upper case letters and the interviewee's words are in upper and lower case letters.

> OK. HOW DEMOCRATIC DID YOU THINK YOUR GROUP WAS?
>
> Very. As far as important decisions went. The others ... it was really, it was a democratic decision that we didn't have to vote on all that Mickey Mouse stuff, it didn't make any difference to us.
>
> IN WHAT SENSE WAS THAT DECISION DEMOCRATIC?
>
> Well, we go, I go, somebody says "look, this is really kind of dumb, this is just a waste of time, we want to accomplish, I just think it's stupid", and everybody agreed. "That's right, it is."
>
> SO THE THING THAT YOU THINK MADE IT DEMOCRATIC WAS THAT EVERYBODY AGREED ON IDEAS?
>
> Yeah.
>
> DO YOU THINK IT'S IMPORTANT THAT EVERYBODY AGREES ON SOMETHING LIKE THAT, OR ...?
>
> Yeah. It helps alot if everybody is in agreement.
>
> HOW DOES IT HELP?
>
> No hard feelings if everybody agrees on everything. Nobody's holding it back, because everybody else wants them to.

WHAT WOULD BE WRONG IF THERE WERE HARD FEELINGS?

Well, it just helps the group run smoother if you can get along without hard feelings, I guess. You don't want them if you don't have to have them.

WHY NOT? I MEAN, WHAT DOES IT MATTER IF THINGS RUN SMOOTHLY OR NOT?

I think that if people, if it runs smoothly, they concentrate on their work, not on, their mind is on their work, not on resentment.

DO YOU THINK IT'S IMPORTANT FOR PEOPLE'S MINDS TO BE ON THEIR WORK, OR JUST FOR THEM TO DO THEIR WORK?

If their mind's on it, I think it's better for them. I mean, if the job gets done either way, it doesn't make much difference, but I think that people can be, if they're happy in their work, it's better for the person. I think they can probably be more efficient if they're happy with their work. They're not always thinking "I wish I was somewhere else." They'll probably do a better job where they are.

IS THE MAIN REASON YOU THINK IT'S IMPORTANT FOR THERE NOT TO BE HARD FEELINGS BECAUSE YOU WANT PEOPLE TO BE HAPPY, OR BECAUSE YOU THINK THE WORK WOULD BE MORE EFFICIENT THAT WAY?

Both. I don't know which is more important. It's, of course I want people to be happy, everbody wants the job to work smoothly, so I think it's important for both those things.

WHY DO YOU SAY OF COURSE YOU WANT PEOPLE TO BE HAPPY? DO YOU THINK EVERYBODY IN THE WORLD WANTS EVERYBODY TO BE HAPPY?

No. I do. I don't really want anybody to ... at least in the group I wanted people not to be sad.

WHY DIDN'T YOU WANT OTHER PEOPLE IN THE GROUP TO BE SAD?

Well, it's just easier to work when people aren't upset about something else, that's all.

SO THE REASON YOU DIDN'T WANT PEOPLE TO BE SAD WAS BECAUSE IT WOULD MAKE IT EASIER FOR YOU TO WORK?

It'd would make it easier for everybody, and I'm included. If nobody's upset, it's easier to work.

The interpretation of interview protocols then involves extracting the structure of an individual's thinking from the content of what he has said. However, in thinking about what this involves, it is important to realize that structure and content are relative,

rather than absolute terms.[1] So, when one talks about structural analysis, one must specify the particular level of structure in which one is interested. In our interviews, we asked subjects to share with us as fully as possible their ways of thinking about the world of work, their past work experience, and their future working lives. We regarded the conflicts which they described and the values which they expressed as the content of their interviews and their implicit theories of the social relations of work as the structure of their reasoning.

The work of Jean Piaget and his associates probably reflects the most abstract level of structural analysis of verbal protocols in cognitive psychology. Piaget (see Inhelder & Piaget, 1958) describes mathematical structures such as groups, groupings, and reversible operations as representing patterns of organization of thought of different levels of complexity, each of which characterizes the thinking of individuals at a specific developmental stage. Thus, from Piaget's point of view, those sets of ideas and theories which organize one's thinking about physics, chemistry, human relations, literature, are each content, relative to the mathematical structure which organizes one's thought as a whole.

In cognitive-developmental research on social reasoning and social development (e.g., Kohlberg, 1969; Selman, 1979), structural analysis has tended not to involve the abstracting of mathematical structures, but rather levels of social perspective. While a level of social perspective may reflect the application of underlying mathematical

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[1] For example, what an expert in auto mechanics says about what part is malfunctioning in the engine of a particular Toyota Corona is content relative to the structure of his understanding of how Toyota Corona engines in general are supposed to work. A probing interview, which asked the reasons for his diagnosis would be likely to reveal this structure. However, at the same time, the mechanic's explanation of how the Toyota Corona engine works would be content relative to the structure of his understanding of how automobile engines in general work. Questions about why the Corona engine is designed as it is would be likely to reveal this sort of structural understanding. At a third level of analysis, what the mechanic says about automobile engines functioning would be content relative to his underlying structural understanding of general principles of mechanics.

structures of thought to the specific content area of social reasoning, these levels of social perspective are assumed to function as structures organizing individuals' thinking about a wide range of social content. Furthermore, like mathematical thought structures, levels of social perspective can be ordered in terms of their cognitive complexity.

In analyzing the interviews we conducted, we were concerned with the patterns organizing subjects' thinking about the world of work and their relations to it. We were also specifically concerned with the development of cognitive abilities that would enable individuals to participate effectively in collective and democratic management of their work. Abilities to adopt the point of view of other people, groups, and organizations, and to coordinate these points of view with each other and with their own points of view constituted the focus of our interests. Therefore, we posited a developmental scheme consisting of a set of forms of reasoning, each reflecting a different range of role-taking abilities, which were ordered according to the cognitive complexity of the level of social perspective involved. We also attempted to specify how these forms of reasoning might be reflected in thinking about work and work-related problems.

Our task in interview analysis was then to determine the most sophisticated form of reasoning of which each individual was capable, based on reading his/her entire protocol. Six judges have been participating in this effort since October. Disagreements among judges in categorizing interviews have led to the redefinition of categories in ways which reduce ambiguity and increase inter-rater reliability. Our present definition of categories is presented in the Appendix.

It must be emphasized that the unit of analysis is the entire interview protocol. Our assumption that our set of forms of reasoning constitutes a developmental sequence suggests that individuals maintain the ability to use less complex forms of reasoning as they develop more complex organizational structures. Because, in an interview situation, there is a tendency for interviewees to try to communicate their views in as clear and simple a way as possible, the comments at the beginnings of interviews tend to reflect those less developed cognitive structures which are nested within more complex ones.

As the interviewer makes it clear through probing that s/he is interested in learning as much as possible about the underlying structure of the interviewee's thinking, reflections of more developed cognitive structures emerge. Thus, while the cues for structural analysis are individual comments that a subject makes, the final rating of the protocol is based on a judgment of the highest level of reasoning which the subject was able to display consistently, when pushed to display that level by interviewer probing.

The following excerpts are presented to communicate some sense of the way in which different levels of cognitive organization may be reflected in discussions of similar content. Both excerpts occur in the context of a discussion of a labor-management conflict in a hypothetical trucking company. According to the story, several workers have been fired for disconnecting monitors placed on their trucks, which they found offensive. Subjects are responding to the question of whether another trucker, who didn't mind the monitors, should join a strike. The first excerpt would be taken as a cue for level 2 reasoning while the second excerpt would be take as a cue for level 4 reasoning. However, no protocol would be given an overall rating on the basis of a single cue. Ratings would reflect the pattern of responses in the whole interview.

Level Two (other's perspective)

(long pause) ... I don't know. He probably should, from what I hear goes on in these truckers' strikes.

WHY IS THAT?

'Cause if he wants to keep his rig very long, you gotta go out and strike with them, especially if there's a very big number of them doing it.

FOR WHAT REASON?

To save his own hide, I guess.

YOU THINK IT MIGHT BE DANGEROUS TO ...

mm-hm.

WHAT IF THERE WASN'T THAT THREAT OF VIOLENCE?

(long pause) ... I don't know. Probably just ... keep on trucking, I guess.

WHAT WOULD YOU DO IF YOU WERE IN THAT SITUATION? DO YOU THINK YOU'D TO ON STRIKE TO SUPPORT THEM?

Yeah, I think I would.

WHY?

Oh, 'cause they're friends, like that. I don't know why (laugh). I'd have to be in the situation, I guess.

WHAT SORTS OF THINGS WOULD YOU CONSIDER IF YOU WERE IN THAT SITUATION? ... WOULD IT MAKE A DIFFERENCE TO YOU, IF THEY WERE FRIENDS OF YOURS?

Yeah, that'd make a difference. That'd probably be the main thing, whether they were friends or not. And if I didn't mind the monitors, and they weren't friends, I'd probably just keep on driving.

MM-HM. WELL, LET'S PUT IT IN THE OTHER WAY. THERE'S ANOTHER TRUCKER, BOB JONES WHO DIDN'T LIKE THE MONITORS, SHOULD HE GO ON STRIKE?

Yeah. 'Cause he's fighting for something he believes in, so he probably oughta go on strike.

WHAT IF IT HAPPENS THAT HE DIDN'T LIKE THE MONITORS, BUT HE ALSO DIDN'T LIKE THESE THREE PEOPLE?

Still go out on strike.

WHY?

'Cause if he wants the monitors changed, then the strike would probably have something to do with that, if he doesn't like them.

Level Four (system's perspective)

I don't know. If he feels it's more important to show unity, then I guess he would. I think maybe he should anyway, because he might not mind the monitor, but he might mind something else later on. And this would set a precedent saying that they had feelings about the things that they'd like to express. He might not have any about this, but he might have some about something that might come along later on.

OK, SO IN OTHER WORDS, FOR HIS OWN INTERESTS. OK, RUN THAT BY ME ONCE MORE.

It'd be better to show that all the truckers had unity, even though he didn't care about the monitors, because he might care about something else later.

SO THAT IF GEORGE FOX WENT ON STRIKE WITH THEM, IT WOULD HELP THE TRUCKERS AS A WHOLE HAVE MORE POWER.

It helps the truckers as a whole have their feelings respected more. It wouldn't really give them power, I don't think. It'd help them later on, if something came up that he was interested in, and the issue for him wouldn't be the monitor, it'd be whether the truckers' feelings were taken into consideration.

AND YOU'RE SAYING THAT WOULD BE IMPORTANT TO HIM, BECAUSE THERE MIGHT BE SOMETHING LATER ON THAT HE WOULD BE CONCERNED WITH?

Yeah. It's the principle of the monitor, not the monitor itself. And the principle could be the same for something else being put on the trucks, or whatever.

BUT LET'S SAY HE SAID "WELL, EVEN IF I GO OUT ON STRIKE NOW, THAT MAY NOT DO ME ANY GOOD IF SOMETHING ELSE COMES UP THAT I CARE ABOUT, BUT OTHER PEOPLE AREN'T WILLING TO GO OUT ON STRIKE?

Well, they're not gonna help him if he doesn't help them, so ... I think it'd be in his best interests if he did it. And in the best interests of the truckers.

SHOULD HE ASK THE TRUCKERS TO PROMISE TO GO OUT ON STRIKE TO SUPPORT HIM?

I don't think so. No.

WHY NOT?

It's more like something that would have to affect everybody, it couldn't just affect him. But he'd want to, he's seen that, "Look, they can lose their jobs for something that they don't like, I could lose my job for something that I don't like. That could come up just the same. Just because I don't mind the monitors, I might mind something else later on." So the principle of being fired and not having any say in what had happened.

DOES IT MATTER IF HE DIDN'T LIKE THE PEOPLE WHO GOT FIRED?

I don't really think so. It's still in his best interest, too, and the best interest of the company. ... I think it's in the best interest of the company because they're gonna avoid hassles later on if the management is aware that it'd be easier to talk than to just do something. And it's be in the best interests of him, and the truckers, if the union was showing itself.

Summary

Our study of the impact of participatory-democratic work experience on adolescent development employs an experimental design and multiple measures of development. Applicants to the Youth Conservation Corps program were assigned to treatment and control groups randomly and an intervention by the investigators increased participants' opportunities to participate in decision making in one of the four crews, as confirmed by regular observations. Pre and post program administration of the Ego Development Scale, and the Psychosocial Maturity Inventory, and of an interview designed to assess the structure of thinking about work-related issues will allow assessment of whether adolescents in the Youth Conservation Corps developed more than those not selected for the program and whether participants in the participatory-democratic work crew developed more than those in the other crews. If the evidence is suggestive, we hope to conduct a study that can confirm or disconfirm our hypotheses.

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APPENDIX

Hypothesized Levels of Social Reasoning

Perspective: A conception of how an individual, group, or system functions and expresses its interests in taking in (assimilating) and responding to (accomodating) the world around it.

1. Considers only own perspective.

   Understands contingencies of authority behavior that affect own interests.

2A. Considers the perspective of other individuals.

2B. Considers own and other's perspectives and understands that others are capable of considering own's perspective and possibilities of coordinating activity to mutual benefit.

3A. Considers the perspectives of groups.

   Includes systems perceived as groups.

3B. Coordinates group perspectives with individual perspectives and other group perspectives.

4A. Considers the perspectives of systems.

   Includes formal organizations, communities, national systems and subsystems of which one is or could be a part when perceived in system terms; i.e., formal, rule-bounded, larger than face-to-face, universalistic, etc.

4B. Coordinates system perspectives with individual and/or group perspectives and other system perspectives.

   Includes appeals to principles when those principles are not justified; i.e., when principles are a kind of internal system.

5A. Considers forms and systems which can be justified as more ideal and which form the normative background against which real systems are evaluated.

5B. Considers system transformation as a process in which real and ideal are in tension.

We expect these general levels of social development to be reflected in the ways in which subjects think about work-related issues. Mentioned below are some of the variety of aspects of work-related reasoning which we believe make a difference in how a worker relates to his/her work and work environment, and which we think can be understood as manifestations of general levels of perspective taking. We expect other important aspects which may be noted in the process of coding interviews to be added to this list.

Level I. If a subject only seems to be looking at a work-related problem from his/her own point of view, or only seems interested in how decisions, issues, and variables in the work-place would affect him/her personally, that would reflect Level I social reasoning.

Level 2A. Applying level 2A perspective-taking in work-related reasoning would involve considering how work-related matters might affect and be perceived by other individuals. The range of individuals whose perspectives a subject takes may be an important variable in work-related reasoning. Therefore, we distinguish the following extensions of Level 2A perspective-taking.

i) considers the perspectives of co-workers whom one views as similar in personal qualities and interests to oneself.

ii) considers the perspectives of co-workers whom one views as different from oneself in personal qualities and interests, but whom one views as having similar status in the workplace to oneself.

iii) considers the perspectives of members of one's work organization whom one views as having different status.

iv) considers the perspectives of individuals outside one's own workplace.

Level 2B.

Level 2B social reasoning is reflected when the subject indicates ways of resolving work conflicts or coordinating work activities to the mutual benefit of oneself and others through mutual perspective-taking. Again, the range of individuals for whom one can conceptualize the possibilities of mutually beneficial coordination may be significant, and the same extensions as are listed under level 2A may be distinguished.

Level 3A.

Level 3A social reasoning about work-related issues would involve considering the interests and viewpoints of groups qua groups. In conceptualizing the range of groups whose perspectives one may consider, we have distinguished the following extensions.

i) group of co-workers who are perceived as similar in personal qualities and interests.

ii) group of co-workers perceived as having similar status in the work-place.

iii) work-group or work-organization as a whole.

iv) groups which interact with one's work group.

v) groups which transcend one's own work setting (unions, trade associations, etc.)

vi) groups within one's work-organization of which one's not a member.

Level 3B

Level 3B social reasoning is reflected when one simultaneously considers an individual as an individual and as a role-occupant or member within a work group and when one indicates how the interests of individuals and groups can be coordinated in the work-place. The range of groups about which one may reason at the 3B level can be specified in terms of the same categories that are listed under Level 3A.

Level 4A.

Level 4A reasoning about work-related problems, the functioning and needs of systems, distinguished from face-to-face groups by their greater complexity and needs for formal rules and procedures as opposed to implicitly agreed upon norms, are considered. The main distinction we have thus far made in conceptualizing the range over which Level 4A reasoning is applied is between considering the perspective of the work-organization or work-system of which one is a part and considering the perspectives of other work-systems.

Level 4B.

Level 4B, which involves coordination of system, group, and individual perspectives, is often reflected in the internalization of system perspectives as personal principles (e.g., of responsibility, conscientiousness, etc.) and the recognition of the ways in which commitment of individuals to the systems of which they're a part benefits both the individuals and systems. Range is conceptualized as for Level 4A.

Level 5A.

Level 5A is reflected in work-related reasoning when existing forms or systems of work-organization are viewed and evaluated against the normative background of forms of work organization which are justified philosophically as more ideal, by appeal to potentials for coordination not present in existing systems. The main range distinction we have made thus far is the distinction between an ideal form of work-organization being justified solely by reference to the interests of the work-organization itself and its participants, and an ideal form of work organization being justified by reference to the interests of individuals and other organizations with which the work organization in question interacts.

Level 5B

Level 5B, is reflected in work-related reasoning when one expresses a concern with the process by which transformation of a work system can occur, and recognizes the importance of understanding both the functioning of the existing system of work-organization and the possibilities of more ideal forms of work organization, in contributing to system transformation.